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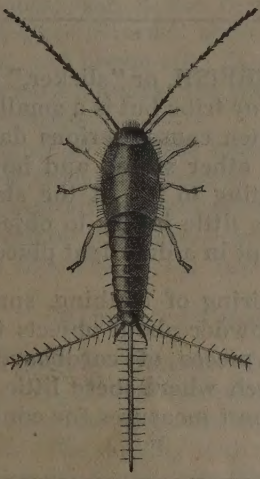
THE SILVERFISH, OR "SLICKER"

AN INJURIOUS HOUSEHOLD INSECT

E. A. BACK

Entomologist in Charge of Stored Product Insect Investigations



Adult silverfish, about two and one-fourth times natural size. (Marlatt.)

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FARMERS' BULLETIN 902

UNITED STATES DEPARTMENT OF AGRICULTURE

Contribution from the Bureau of Entomology

L. O. HOWARD, Chief

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THE SILVERFISH, or "slicker," does not belong to the finny tribe but is a small, wingless, agile insect that often causes serious damage to books, clothing, and other stored and household objects while attempting to get at the starch or glue in them. It does little injury to objects in daily use or to those kept in a dry, light place.

Frequent airing of clothing, sprinkling pyrethrum insect powder about objects to be protected, and placing pieces of cardboard covered with poisoned starch where these little insects congregate are the best measures for controlling them.

THE SILVERFISH,[1] OR "SLICKER"; AN INJURIOUS HOUSEHOLD INSECT.[2]

THE SILVERFISH is that glistening, silver or pearl gray insect with three long tail-like appendages, shaped as illustrated on title-page and in figure 1, that one finds when books, papers, clothing, etc., are suddenly moved. From the dark recesses thus exposed to light the silverfish glides quickly out of sight, often thwarting all attempts to catch it. In fact, this insect is an adept at dodging, and when actually in contact with the fingers, the slick, shining body easily slips from the grasp. On account of its glistening body, its quick, gliding movements, and its ability to appear and as quickly and mysteriously disappear, it has received a number of popular names, among which are silverfish, slicker, silver louse, silver witch, sugarfish, woodfish, and bristle-tail. It occurs in both Europe and America, and, like most insects of the household, is well-nigh cosmopolitan in its distribution.

There are a number of different kinds of silverfish, perhaps the most common, aside from the subject of this paper, being the "firebrat."[3] This is a heat-loving species that is to be found in greatest numbers about fireplaces and bake ovens and may be distinguished from the common silverfish by the dusky markings on its back, as shown in figure 1.

HABITS AND INJURY.

Because the silverfish always shuns the light and has the ability to run very rapidly to places of concealment, it is not often seen and may become very abundant and cause considerable injury before its presence is noticed. The rapidity with which it runs and the slipperiness of its body, due to the scales that clothe it, make it almost impossible to catch the silverfish without crushing or damaging it.

The silverfish is one of the most serious pests of libraries, particularly in the bindings of books. Frequently it eats off the gold lettering to get at the paste beneath, or gnaws off the white label slips glued on the backs of books. Heavily glazed paper and museum labels are sometimes disfigured or destroyed by the feeding of the pest upon their surfaces. In some cases books printed on heavily sized paper will have the surface of the leaves a good deal scraped, only those portions covered by the ink being left unattacked.

The silverfish also will eat any starched clothing, linens, or lace or muslin curtains, and has been known to do very serious damage to silks which had probably been stiffened with sizing. By eating

[1] *Lepisma saccharina* Linnaeus; order Thysanura, family Lepismatidae.
[2] This bulletin supersedes Farmers' Bulletin 681.
[3] *Thermobia domestica* (Packard).

the paste from the back of wall paper the silverfish sometimes causes the wall paper to scale off. The pest has been reported feeding upon carpets, plush coverings of furniture, and even upon certain vegetable drugs.

It is seldom that the silverfish causes damage except where its food has been left undisturbed for long periods packed away in drawers, closets, bookcases, or other such places. The pest multiplies rapidly in houses closed for the summer. It likes warmth and does little damage during winter in the North, although in the South it is active the year around, much as are cockroaches.

FIG. 1.—The "fire brat." Adult female. About twice natural size. (Marlatt.)

REMEDIES.

As stated, silverfish cause injury to clothing, books, etc., in their attempts to get at the starch or glue in them. Advantage may be taken of this craving for fabrics and other articles containing these substances to poison the insects by slipping into all the crevices where they occur—in bookshelves and backs of mantels, under washboards, and in the bottoms of drawers—pieces of cardboard on which a thin boiled starch paste, poisoned with powdered white arsenic, has been spread and dried. In making the paste the following formula should be used: Flour, 1 pint; white arsenic, ½ to ¾ ounce; water. The arsenic should be added to the flour and sufficient water used to make a thin paste by boiling. Complete relief has been secured by this measure. *Great care should be taken to keep the arsenic, the poison paste, and the poisoned bits of cardboard where young children will not get hold of them.*

Pyrethrum, or buhach powder, dusted upon bookshelves or other places where it can be used, is of value; but it must be renewed often, for it loses its power as an insecticide after long exposure to air.

For starched clothing and similar objects liable to injury, frequent handling and airing and the destruction by hand of all silverfish discovered are to be recommended, in addition to the remedies noted above. Little damage is likely to occur in houses except in comparatively moist situations or where stored objects remain undisturbed for a year or more.